

The American Printing House for the Blind: A chronology of company history and events which influenced its formation

398 C.E. A blind monk, **Didymus**, head of a Christian school in Alexandria, Egypt, learns to read by studying letters carved in wood. For almost 1400 years, Didymus remains one of the few successful examples of possibilities for educating people with visual impairments. For those who survive to adulthood, there are few opportunities for independence.

1749 The French encyclopedist, **Denis Diderot**, publishes "Letter on the Blind." He theorizes that people with visual impairments could be taught by devising new educational methods based on their remaining senses.

1784 The first modern school for the blind is founded in Paris, France by **Valentin Haüy**. Convinced that if students could learn to read, they could find employment, Haüy began his experiment with one pupil, Francois Lesueur. Haüy developed a process of embossed printing in raised letters that led to the first book for the blind in 1786, *Essai sur l'Education des Aveugles*.

1829 **Louis Braille**, a student at the school for the blind in Paris, France, publishes *Method of Writing Words, Music, and Plain Song by Means of Dots, for Use by the Blind and Arranged by Them*. Braille had adapted his system from the work of Charles Barbier, a French military engineer. Although admired by his fellow students as well as several teachers, Braille's system was not adopted in France until 1854, two years after his death.

1829 A group of Boston philanthropists found the first school for the blind in America, which later becomes known as the **Perkins Institute**. In 1831, the board selects Dr. Samuel Gridley Howe as the school's first secretary.

1832 In Bristol, England, Thomas Lucas invents another tactile code not based on the Roman alphabet. Braille and the **Lucas System** were attempts to make tactile books easier to read with the fingers.

1833 Jacob Snider, recording secretary of the Pennsylvania Institution for the Instruction of the Blind, develops a raised letter alphabet and produces the **first embossed book** for the blind in America, *The Gospel According to St. Mark*.

1835 Samuel Gridley Howe develops **Boston Line Letter**, his own effort at creating a more legible raised letter alphabet. For the next seventy years, the majority of books for the blind are embossed in Howe's alphabet. **Howe founds a printing operation at his school** in Boston that quickly embosses the Bible and other works.

1842 Inspired by an exhibition by Samuel Gridley Howe and his students, the Kentucky Legislature charters the **Kentucky School for the Blind** in Louisville under the leadership of **Bryce M. Patton**. The school moves to its present site on Frankfort Avenue in 1855.

1857 The **Mississippi State Legislature** charters a board of trustees to raise funds to establish a national publishing house for the blind. **Dempsey Sherrod**, a blind Mississippi man, is appointed general agent for the board. Sherrod travels throughout the south raising funds and political support for the project. (Note: Although Sherrod was critical to the founding of APH in Louisville, by 1861 he was advocating the

establishment of a competing press in Washington, D.C. His efforts in that direction were condemned by both APH and eventually, in 1873, by the Association of the Instructors of the Blind, the national blindness education professional group.)

1858 The **General Assembly of the Commonwealth of Kentucky** passes an act to establish the **American Printing House for the Blind** on January 23. The company's board consists of seven Louisville businessmen, educators, and politicians. The board is chaired by former Secretary of the Treasury James Guthrie, the great, great, great grandfather of APH's present day director of field services, Janie Blome. **Bryce M. Patten**, head of the Kentucky School for the Blind, becomes the company's **first superintendent**. The American Printing House for the Blind received its first operating funds from private citizens in Mississippi and Kentucky—about \$1,000 from each state. Patten orders an **embossing press from Samuel Ruggles**, who had adapted a similar press for the Perkins Institution in Boston.

1860 The **Braille alphabet is formally adopted** at the **Missouri School for the Blind** in St. Louis.

1861 With the outbreak of the American Civil War, access to funds from the southern states was cut, **halting all work until the end of the war**.

1863 Samuel **Ruggles delivers his press**, adapted from a common Hoe cylinder press. Plans were made to set up the Printing House in **basement rooms at the Kentucky Institution** for the Education of the Blind on Frankfort Avenue. The press cost about \$750.00

1865 The **Commonwealth appropriates \$5 per blind person** in Kentucky to the company to print books in raised letters in accordance with the charter on June 3. It is the first sustained government funding for the enterprise.

1866 The **first book produced by APH**, A Book of ***Fables and Stories for Children*** by **John Gay**, is **published in raised letters**. The company printed 400 copies over the next three years. The firm's next book, a second book of fables by John Gay, did not appear until late 1870.

1868 **William Bell Wait**, influential head of the New York Institution for the Education of the Blind, introduces an adaptation of braille that he calls **New York Point**. His skill as an advocate guarantees that his system will be **adopted by most schools in the United States during the 1870s**.

1871 The National Association for Printing Musical Works for the Blind—founded in 1869--merges with APH in May. For a time, the Association's shop in Philadelphia becomes the company's Pennsylvania branch. Bryce Patten resigns as superintendent in November. He is succeeded by **Benjamin B. Huntoon**, a Harvard graduate who had spent the previous fifteen years at a boy's training school.

1873 The APH **Ruggles press** is **exhibited at the Louisville Industrial Exposition**. The printing house **installed an innovative Baxter steam engine** to power the press upon its return. It was the first use of steam to print for the blind. New Jersey establishes an endowment of \$5,000 to buy APH materials for blind persons in that state.

1874 Books by APH receive a medal of merit at the Vienna Worlds Fair.

1875 The company produces its **first book in the New York Point** system developed by William Bell Wait. *Rab and His Friends* by John Brown is **also the first book ever**

printed using brass stereograph plates. Over the next few years, as New York Point becomes more popular, the **company shifts its production away from raised letters.** After consulting with Dr. Howe at Perkins and Dr. Chapin at Overbrook, APH has a **new raised letter font** cast, calling it “**combined type,**” it **used the lower case forms from Howe’s Boston Line,** and the **capital letters from the Philadelphia** school introduced originally by Julius Friedlander.

1876 The company produces its **first educational aids: handwriting guides,** and **models of dissected maps** in partnership with John P. Morton & Company of Louisville. Until the creation of the educational research department in the 1950s, “**appliances**” are not a major area of growth.

1879 An **Act to Promote the Education of the Blind** establishes APH as the sole federally supported supplier of educational materials for the blind in the United States. Initially introduced in the House by Henry Watterson in 1877, the bill did not make it out of committee. Albert S. Willis, an attorney from Louisville, presents the bill again in November 1877. It was approved by the House in 1878, and signed by President Rutherford Hayes on March 3, 1879.

1880 Responding to demand from the ex-officio trustees—the heads of schools for the blind—the APH board decides that **50% of the company’s products will be embossed in New York Point.**

1881 The federal subsidy included in the “Act” spurred growth in production beyond the capacity of the printing facilities in the basement shops at KSB. **Money owed APH by the Commonwealth** from the 1865 annual subsidy was **paid in full,** allowing the company to **begin building its first building** on land north of the Ky School for the Blind on Frankfort Avenue.

April 19, **1882,** A **deed is finalized,** from David Franz to the APH trustees, conveying 6.8 acres between the Louisville and Lexington Turnpike and the Brownsboro Turnpike and bordered on the east by the “Blind Asylum lot,” for a purchase price of \$9,520.

1883 APH moves from the basement of the KY School for the Blind into a new building on the adjacent property in May. The 6.8 acre site cost \$9,520; the three story brick building—with a fireproof annex for storing stereograph plates--cost \$10,492. The company’s ornate safe, manufactured by the Hall Safe Company in Cincinnati, was too awkward to move from the KSB shop until 1912.

1884 Superintendent **Huntoon introduces a new method of stereotyping** “by which is secured a **flexible stereotype plate,** made of tin foil, amalgamated to a sheet of ordinary roofing tin.” The new method still requires the use of lead type set by hand and hot metal casting. **Huntoon also developed a “double cylinder press”** capable of printing about 120 pages per minute. Until the 20th century, the Huntoon and Ruggles presses handle all embossing work at APH.

1887 APH introduces **new products for kindergarten** use, including “squares of cardboard perforated for sewing, wooden cell frames for peg work, and hardwood pegs.” Michael Anagnos had established the first kindergarten program for blind children in Boston in 1887.

1888 APH begins marketing **McElroy’s Point Writing Machine,** a mechanical **New York Point** device developed by James McElroy of the Michigan School for the Blind and manufactured by Tafel Brothers in Louisville.

1892 Frank Hall and G.A. Seiber develop the **first successful mechanical braillewriter** in Chicago, Illinois. Hall has discovered that braille's regular character size make it much easier to mechanize than the variable length characters of New York Point. A **stereotype machine** to prepare metal embossing plates **soon follows**.

1893 First books embossed in "modified" or "American" Braille at APH are produced: several St. Louis Readers, two children's books, and two volumes of Davis' Second Reader. They appear as an addendum at the very back of the catalog. New York Point has gradually assumed an equal position in the catalog with books in raised letters.

1894 The company **replaces the old Baxter steam engine with a modern Gardner 5-hp steam engine**. A **major project** in 1894 was the composition and stereotyping of the **Bible into New York Point for the American Bible Society**. The company also features an extensive list of tactile maps.

1895 The **first "telephone instrument" is installed** at APH, purchased from Tafel Brothers. Invented in 1876, Louisville had a telephone exchange by 1879.

1897 The fireproof vault on the eastern side of the building is extended to double its capacity. The invention of the braille stereotype machine by Frank Hall at the Illinois School for the Blind in 1892 begins to seriously impact the number of American Braille titles produced at APH. Titles stereotyped at schools for the blind in St. Louis and Philadelphia on Hall stereotypers are embossed at APH in ever increasing numbers.

1898 APH purchases six New York Point stereotype machines from the New York Institute. Production of new titles in New York Point immediately doubles as the stereotype machines dramatically decreases the time and cost of preparing embossing plates. The days of setting printing type at APH are numbered.

1900 The fireproof vault on the east is expanded again, adding a second floor. The output of embossed books is increasing dramatically, growing from a fifteen-page publications catalog in 1894 to a 100-page listing ten years later. The expansion is a direct result of the adoption of point-based codes and the development of the stereotype machine.

1905 The company's steam power plant is replaced by a 5 hp Westinghouse electric motor. Separate electric motors power machines in the bindery and composing room. On July 1, APH purchases a map making machine from Harrison and Seifred in Chicago. Now known as the PEARL companion, the same machine is still in use today in the tactile graphics shop. According to the KSB annual report the school received funding to build a stone wall in front of their property, so it is probable that the APH stretch of the wall was built at a similar time.

1906 APH buys its first Braille stereotyper on November 20 from Harrison & Seifred in Chicago.

1910 At the 1910 annual meeting of the company's ex-officio trustees, a motion is offered from the floor to devote 40% of the company's plate making capacity to the production of American Braille. After heated debate, and over the opposition of Superintendent Huntoon, the motion passes. The measure is the beginning of the end for New York Point. The company begins buying additional braille stereotypers.

1915 APH establishes its first staff vacation policy, allowing all employees the first two weeks of August off.

1917 Discussions between American and British negotiators on a uniform English braille code break down Congress is asked to increase the annual appropriation to \$50,000 based on increased enrollment in schools and the impact of blinded veterans of World War I.

1918 A Revised American Braille code is adopted by American educators in June 1918. With Huntoon ailing, and APH President Andrew Cowan himself suffering from the influenza epidemic which swept the nation, influential APH ex-officio trustees grow frustrated with an unresponsive APH front office and a seeming slow response to the challenge of introducing primer materials for the revised code, Grade 1.5. Susan Merwin, Superintendent of the Kentucky School for the Blind, is appointed Assistant Secretary to the APH Board, and immediately becomes the face of the company.

1919 Superintendent Benjamin Huntoon dies. He is recognized nationally as a leader in blindness education and an innovator in the production of embossed books and maps. His replacement in 1920 is Susan Merwin, superintendent at the Kentucky School for the Blind. She begins a program of equipment purchases and facility renovations at APH. The APH Board votes to eliminate the stereographing of non-braille textbooks.

1921 At the request of the ex-officio trustees, Merwin creates a committee on tangible apparatus to test and develop special educational apparatus. Production of "tangible apparatus" will require more manufacturing space and a larger staff. Plans for a new two-story wing to the west are developed in 1922.

1923 The new wing is largely finished by May 1923. On May 6, Superintendent Susan Merwin dies unexpectedly.

1924 E.E. Bramlette, Superintendent of the Texas School for the Blind, is hired as her replacement. For the first time, the Kentucky School for the Blind and APH are not headed by the same person.

1925 APH installs an automatic sprinkler system from the Viking Sprinkler Company. Memories of the horrific Triangle Shirtwaist Factory Fire in New York in 1911 and rising fire insurance rates led many manufacturers to install the increasingly reliable systems. In the summer of 1925, APH employees are treated to a company picnic at Rose Island, a park on the Ohio River. The park was reached by steamboat and featured a hotel, 400 seat restaurant, swimming pool, dance pavilion, merry-go-round, baseball field, zoo, miniature golf, shooting gallery, walking trails, and pony rides. [Note that the Belle of Louisville, then known as the Idlewild, was brought to Louisville in 1931 to run trips between Fontaine Ferry and Rose Island.]

1926 Braille has almost completely taken over production at the company. Of 3,512,152 pages printed at APH in 1926, 94% are in braille. A third story is added to the west wing built in 1923, constructed between August and November 1926. Designed by Arthur Loomis and built by the National Concrete Construction Company. Initially, the presses are located in the new space.

1927 The company begins adapting its Braille stereotype machines to make interpoint embossing plates—allowing braille on both sides of the embossed page. To test the process, APH publishes its own magazine for the first time, "Our Own." Cooper Engineering in Chicago incorporates the changes in a new stereograph machine they call the "APH Stereograph Machine." APH purchases the slate making machine shop of the Cooper Manufacturing Company, heirs of the original Harrison & Seifred Company. The addition of trained machinists to the company allows most machinery repairs to be performed in-house for the first time.

1928 APH begins publication of *Reader's Digest* in braille. A new press devised to handle the interpoint embossing plates produces more than 9,000 pages/hour. The new press is ideal for magazine embossing and the company begins expanding its magazine production dramatically.

1929 Superintendent Edgar Elliot Bramlette (1860-1929) dies.

1930 Andrew C. Ellis is hired as Bramlette's replacement. Like Bramlette, he was principal at the Texas School for the Blind prior to his appointment at APH. He is committed to expanding the company's line of "tangible apparatus." Interpoint has become an established fact. 28% of books and 85% of magazines are printed in interpoint in 1930.

1931 Congress passes the Pratt-Smoot Act, creating the National Library Service for the Blind and Physically Handicapped at the Library of Congress.

1933 APH officially accepts the uniform braille system adopted at the London Type Conference. The "War of the Dots" is over. Reports from the board's music committee suggest that demand for the company's sheet music is extremely low. Sheet music declines as an important line of the company.

1934 A plate storage vault is constructed behind the west wing on State Street. The company introduces the Beetz Notation-graph, a music education tool. In the machine shop, engineers begin work on a duplicate plate making machine to supply copies of embossing plates for use in Great Britain. R.C Ballard Thruston, a member of the board, donates \$1,000 to start the company's first endowment fund.

1935 Workers from the Federal Emergency Relief Administration show up to clean the plant, paint the administrative offices, and refinish the company's office furniture. Despite the Depression, Braille production at APH has increased from 4.3 million pages in 1929 to 13.3 million pages in 1935. The company adopts a variety of labor saving machinery, and moves to a 35 hour work week. The City of Louisville asks for and receives permission from the company to build embankments at the rear of APH property to support Brownsboro Road.

1936 In February, with help from Electrical Research Products, Inc., APH establishes a model recording studio and record production department. The first five talking books are produced: **Silas Marner**, **Gulliver's Travels**, **Treasure Island**, **Pinocchio**, and **The Sketchbook**.

The company becomes the only institution for the blind in the world capable of manufacturing talking books from start to finish. Requests for books in large print are acknowledged when the board authorizes Ellis to prepare a large type version of **Everyday Manners for Boys and Girls**. It is the first book of its type at APH. APH begins publishing braille editions of My Weekly Reader and Current Events magazine.

1937 The company is forced to close for three weeks during the Flood of 1937. APH received its first contract from the Library of Congress to produce Talking Book records in late December 1937. The late award of the contract required APH to request permission from the LC to delay delivery of the full contract until September 1938.

1938 The company's original plant is increasingly overcrowded due to TB production. The company leases property at 116 South Brook Street and moves the stereotyping and printing equipment there in July. The board considers selling the Frankfort Avenue property and moving to a modern facility.

1939 The first talking magazine, **Reader's Digest**, is produced.

1940 The New Hall Braillewriter, an APH design based on the original Hall Braillewriter, becomes the first braillewriter developed completely by the company.

1941 A second studio is added to the recording department. Production of the "New Hall" and other products are delayed by shortages of skilled workers and materials due to World War II.

1942 A new ring binding method is approved to replace more expensive, less durable stitched bindings on APH books.

1943 APH is declared an essential industry under the Louisville Employment Stabilization Plan. The National War Labor Board exempts APH from Board review of salary adjustments, allowing the company to raise its wages and retain skilled workers. The company gradually drops older titles from its catalog to recycle the zinc printing plates. Zinc is difficult to obtain in the wartime economy. Fourteen employees resign to join the armed forces. Experiments with using steel embossing plates are unsuccessful.

1946 Twenty employees who left to join the military return to Louisville safely. Most return to their jobs at APH. Construction begins that summer on a new brick and tile manufacturing structure behind the original building. Andrew Ellis dies on May 25, 1947. He is succeeded by Finis Davis, superintendent of the Arkansas School for the Blind. Finally committed to begin regular production of large type books, APH buys equipment, hires new staff for the department, and continues to experiment. A number of new educational aids are also in the works.

1948 The printing, binding, and tangible apparatus departments move into the new manufacturing annex. In the midst of the post war baby boom, many of the company's female stereograph operators leave to get married and raise families. The large type department begins production enlarged from copy prepared on electric typewriters.

1949 The company offers its first retirement plan on July 1. The plan also provides employees with company provided life insurance. APH stages an open house in October to showcase their expanded quarters in full production. 2,500 visitors flood the plant to see.

1950 The expanded facilities allow dramatically expanded production: 35% in Braille stereotyping, 41% in Braille printing, 66% in large type, and 69% in record pressing. Record pressing adds a second shift for the first time in company history. Congress passes a minimum wage law, increasing the average APH production worker's hourly rate from 70 to 90 cents. Congress also votes to add workers at non-profit companies to Social Security. The company introduces a new talking book reproducer. Molds for a plastic dissected relief map of the U.S. are completed.

1951 With the outbreak of the Korean War, four employees are recalled to active service.

1953 APH hires its first full-time Director of Educational Research, Dr. Samuel Ashcroft, principal at the Iowa Blind and Sight Saving School. In the large type department, a silk-screen process is introduced to print covers that match the appearance of regular ink-print versions of the same textbooks. It is no surprise that kids want their large type version to match their neighbor's. The company furnishes a complete pilot printing plant

to Cuba and begins work on five stereograph machines for Brazil and China. The company has 180 employees.

1954 The company's first employee health plan is introduced through Blue Cross/Blue Shield. Ground is broken on a new administration building on the front of the original building to house talking books in the basement and offices on the other four floors. The practice in the United States, particularly in former slave states, of segregating black and white students into separate schools is deemed unconstitutional by the Supreme Court in *Brown v. Board of Education of Topeka*. The decision leads to both the closing of separate departments for African American students in residential schools for the blind, but also pressure to provide equal access to educational opportunities for students with physical and mental disabilities.

1955 The new administration building is completed. APH introduces the REAL Program (Recorded Educational Aids to Learning) of recorded lessons on reel-to-reel tape. First known use of the APH logo: on a TB magazine.

1956 APH begins buying Perkins Braillewriter subassemblies from the Howe Press in Boston and performing the final assembly in Louisville.

1957 The company begins working with IBM to develop a tape controlled embossing system. Initially, data is stored on paper tapes. The tapes are read by special stereographs, eliminating the need for skilled stereotypers. The Educational Research Department begins testing product prototypes at the Kentucky School for the Blind, the Connecticut Institute for the Blind and the Washington State School Board.

1958 APH hosts a centennial luncheon for staff, trustees, and the field. The old eastern wing to the building, originally built in 1883, is razed. A two story cafeteria and storage structure replaces it in 1959. Dr. Carson Nolan replaces Samuel Ashcroft as the head of Educational Research.

1959 On January 5th, APH produces a talking book version of *Newsweek*; the first recorded weekly magazine in history. On April 21, IBM holds a news conference to announce the successful programming of a IBM 704 computer to automatically translate ink print material into contracted Braille without the aid of a brailist. The system stores the data on punch cards which drive stereograph machines at APH to prepare embossing plates. It is the 25th anniversary of the Talking Book. APH produces more than half the talking books made in America.

1960 In January, for the first time, enrollment of blind students in public schools surpasses that in residential schools for the blind. Providing textbooks for the public school market is more difficult, requiring the company to prepare an increasingly large variety of texts but in fewer quantities of each individual title. Production of the first major reference work for blind people and the largest braille project ever undertaken begins: the 145 braille volume *World Book Encyclopedia*.

1961 Under the leadership of Carson Nolan, the Education Research Department is conducting basic research on learning and the blind. Congress amends the Act, deleting the stated ceiling on annual appropriations, and allowing some funds from the Quota to be used for administration of the Act. The Quota dramatically increases, needed since all students, whether enrolled in a residential school or a public school must now be covered by the provisions of the Act and APH must provide them with accessible materials. It is challenging, as stated by Supt. Finis Davis: "...the variety of educational materials, and the quantity of each, requested from the schools and classes has changed markedly in the past few years. In the past, it was possible to supply an adequately

basic core of Braille and large type books, particularly, in fairly large quantities, to meet the requirements. With nearly 60 per cent of the blind students now being educated in public or integrated school situations, the variety of titles in each subject have become almost unlimited, with a consequent drastic decrease in the total number of copies requested for most titles.”

1962 The APH Lavender Braillewriter is first produced. 40,000 square feet is added to the manufacturing annex on the eastern side, allowing increased production in Braille and large type textbooks. The company begins experimenting with the Xerox photocopying process in large type. The first field representatives, funded through the changes in the Act passed by Congress in 1961, come on board to demonstrate the company’s increasingly diverse line of educational aids for the blind, Blanche Dougherty and Christopher Stapleton. It is the beginning of what will later be known as Field and Advisory Services.

1963 After extensive research reveals the effectiveness of the abacus for math education, APH unveils the Cranmer Abacus. Developed by Dr. Tim Cranmer, the abacus is designed specifically for blind school children. Two modern recording studios are added in talking books. In an address to the CEC in November, Carson Nolan announces that APH, which had published accessible tests for years, would assume a “major role” in adapting and developing tests for blind students, in the wake of the death of Dr. Samuel Perkins.

1964 Computer braille translation begins when IBM presents APH with a 709 computer, valued at two million dollars. An electronically driven stereograph machine reads computer-driven punch cards, dramatically speeding the process of preparing embossing plates. The recording studio experiments with talking book editions of high school textbooks.

1967 Another 40,000 square feet is added on the manufacturing annex, this time on the western side.

1968 The company has 435 employees.

1969 The company produces its first experimental talking books recorded on cassette tapes for the Library of Congress. Transistorized talking book phonograph players and tape recorders go into production. Ground is broken in 1969 on an 18,000 square foot expansion of the administration building.

1970 Two more recording studios are added in Talking Books. In the spring, IBM replaces the model 709 computer used to translate Braille with a new 7040.

1971 Faced with heavy inflation as a result of military expenditures in Vietnam, President Richard Nixon uses emergency powers granted by Congress to freeze price and wage hikes. APH had increased wages earlier in the year, but Nixon’s act prevents the company from raising catalog prices accordingly.

1972 Flexible records, used for large production runs like Newsweek and Reader’s Digest, are produced for the first time and mailed directly to subscribers. The company has 550 employees. For the first time, APH pays for unemployment insurance. Prior to 1972, Kentucky law did not require nonprofit companies to pay into the fund. The Central Catalog of Volunteer-produced Textbooks and the APH Instructional Materials Reference Center are created—the precursors to databases of accessible material today known as “Louie.”

1973 Cassette tape production begins in earnest. APH adapts a GE cassette player/recorder to allow variable speed and compressed speech. General Manager Finis Davis receives the Migel Medal on October 25, the highest award of the American Foundation for the Blind.

1974 Marjorie Hooper, the company's Chief Editor, and head of production Virgil Zickel retire. Between the two, they have 67 years of service to APH and oversaw many of the sweeping changes that grew the company into the largest supplier of educational materials for the blind in the world. General Manager Finis Davis announces his own retirement in August 1976.

1975 The company has 596 employees. The Education for All Handicapped Children Act is enacted by Congress. The act requires all [public schools](#) accepting federal funds to provide equal access to [education](#) and one free meal a day for [children](#) with physical and mental [disabilities](#). Public schools are required to evaluate handicapped children and create an educational plan with parent input that emulates as closely as possible the educational experience of non-disabled students. The act also requires school districts to provide administrative procedures so that parents of disabled children could dispute decisions made about their children's education.

1976 APH replaces its IBM 7040 in braille translation with an IBM model 360-65. Carson Nolan is promoted to succeed Finis Davis as General Manager. Record production in talking books sets an all-time high. Cassette production is also rapidly expanding.

1977 For the first time, Congress makes federal funds from the Act to Promote the Education of the Blind available for research projects. June Morris becomes Director of Research. The U.S. Consumer Product Safety Commission (CPSC) in cooperation with the Kentucky Department of Human Resources and the American Printing House for the Blind, announced on Oct. 3 the recall of 12 products which have excessive lead content in their paint.

A regulation under the Federal Hazardous Substances Act establishes a 0.5% permissible level for lead in paint to reduce risk of lead poisoning to children who may ingest paint chips or peelings. No injuries or illnesses have been reported associated with the products now being recalled.

The products currently under recall are:

- I-0301 Biological Models
- I-0332 Land Form
- I-0340 Mitchell Form Sets
- I-0357 Sports Field fit
- I-0371 Shape Board
- I-0382 Textured Blocks
- I-0372 Puzzle Form Board Kit
- I-0872 Sound Matching Board 11
- I-0108 Large U.S. Map
- I-0109 Small U.S. Map
- I-0329 Fractional Parts
- I-0359 Stokes Place Holder

1978 Heavy ice and snow in January and February shut the plant down for many days. A fire in the summer destroys the IBM 360/65, reducing plate making ability by 50%. Rigid vinyl record production drops dramatically as production of talking books begins to shift to cassettes. Flexible record production, used for magazines, remains high. The APH logo is used on a print publication for the first time.

1979 Three new recording studios are added, bring the studio total to nine.

1980 A \$2 million addition brings the APH facility to its present size (282,000 sq. ft.) The increased space is required for the production of educational aids, which have overtaken Braille, large type, and talking books as the company's most important product for the first time.

1981 *The Talking World Book* is produced on 290 ninety minute cassettes. The set requires a 22 volume index. Sales in 1981 jump 21.6%, the largest increase in company history. In June, 350 production workers organize and join the Teamster's Union. A forty month contract with the company is signed in July. Dr. Virginia Keeney becomes the first woman to serve on the AOH Board of Trustees. Art Curtis, Jr. is hired as the company's first Director of Marketing.

1982 The number of employees at APH falls under 500 for the first time in ten years, primarily due to labor saving equipment and techniques. APH Notes, a company newsletter, puts out issue #1 in the spring.

1984 Throughout the mid 1980s, struggles between Congress and President Ronald Reagan over federal spending create an atmosphere of budget uncertainty. A new short run process in Large Type promises to allow a two week turn-around on orders and to eliminate the need for costly inventories.

1985 As the nation struggles with economic recession, sales are stagnant and the company begins a review of its operations. The company launches a \$2.5M program to upgrade overall efficiency and streamline production. The Plate Embossing Apparatus for Raised Lines (PEARL) is designed at APH by Gary Davis to create printing plates for tactile graphics. The company also approves production of its first software titles: Echo Commander and the Talking Apple Literacy Kit.

1987 The company phases out rigid vinyl record production in May. Braille production is completely computerized. Data entered into a computer is used to drive a plate embossing device (PED) to produce an embossing plate, or a text embossing device (TED), if a single copy is needed. As a part of the 1987 Gramm-Rudman Act, federal support for APH is reduced by \$234,000. The drop in federal support and a 6% drop in annual sales reinforces the company's drive to streamline production. By June, the APH workforce has been reduced to 340.

1988 A computerized database for accessible text books (CARL) is introduced, named for Carl Lappin, former textbook consultant and founder of the manual Central Catalog. Data was entered into a Hewlett Packard computer, which allowed users to dial directly into the database to look for information. Dr. Carson Nolan retires in December.

1989 In January, APH creates the Technical & Manufacturing Research Department, led by Bob Phelps and staffed by Frank Hayden, Darlene Donhoff, and James Robinson. The department managed the development cycle of new products. Dr. Tuck Tinsley, Principal at the Florida School for the Blind, becomes President at APH in February.

1990 APH issues its first strategic plan. The company is honored by Newsweek Magazine during the 30th anniversary of the production of the talking book version of the magazine. The Educational For All Handicapped Children Act of 1975 is overhauled when President George Bush signs the Individuals with Disabilities Education Act of 1990. One

of the most importance changes under IDEA is the IEP, an education plan matched with the specific needs of the child.

1991 The company formally adopts new a mission statement. *The American Printing House for the Blind promotes independence of blind and visually impaired persons by providing special media, tools, and materials needed for education and life.* Faced with a threatened budget cut from the House of Representatives over its failure to hire more blind employees, the company begins partnering with service agencies across the nation to recruit workers from the visually impaired community with suitable skills.

1992 APH renews its emphasis on customer service, expanding the accessible textbook database, adding a toll-free information phone line, creating a Department of Public Affairs, and initiating new inventory control measures to decrease back orders. The first Insights Art competition and exhibition for artists with visual impairments is held in Louisville during the APH annual meeting. Overall, production begins to shift to on-demand, particularly in Braille and Large Type. Inventories of outdated material are dramatically reduced.

1993 NOMAD is introduced. APH releases the first books on floppy disks in a program called TEXT2000. Large Print introduces multi-colored covers for its books. Use of a new Xerox Docutech printer allows rapid production of Large Print textbooks. The *On the Way to Literacy* series of children's books is introduced.

1994 Museum of the American Printing House for the Blind opens on the second floor of the original 1883 building. The company produces its first application of instructional video: *Discovering the Magic of Reading: Elizabeth's Story*. PC-Typer is the company's first application software in MS-DOS.

1995 A company wide computer system is installed. Calls to the APH customer service line increase to 1,200/week. The Mini-Light Box is approved for production. New computer software research focuses on the Microsoft Windows platform.

1996 As Congress struggles to pass a balanced budget for the first time in half a century, APH faces a recommended 40% cut in federal funding. Eventually, funding is restored in full. APH.org goes live on the internet on September 30. APH introduces accessible versions of the Stanford Achievement Test, 9th edition and the Handi-Cassette II.

1997 The APH database of materials in accessible media is renamed LOUIS and made available on the internet. Toyota selects APH as a project company. Over the next three years, Toyota engineers and efficiency experts work with APH to improve productivity and reduce costs. Charles Barr joins the APH Board, following in the footsteps of his great grandfather, grandfather, and father. Mitzi Friedlander becomes the first narrator to read 1,000 titles in the history of the National Library Service.

1998 Products from APH appear in the MGM feature film *At First Sight*, starring Val Kilmer and Mira Sorvino. New research positions are created in the areas of low vision, technology, adult living, early childhood, and assessment to accommodate growing demand for products in those areas from the ex-officio trustees. APH scraps its last mainframe computer and goes to a PC-based system.

1999 The company's museum is renamed the "Marie and Eugene Callahan Museum of the American Printing House for the Blind to acknowledge an important gift.

2000 The last five years have seen a dramatic growth in the number of new products. Since 1996, 173 new products hit the market from APH. In January, the company creates the Accessible Textbooks Initiative (ATIC) to improve the quality and speed of APH textbook production.

2001 Fred's Head goes live, an expert database listing tips and techniques for daily living and visual impairments. APH Vice President of Public Affairs Gary Mudd stars in an Animal Planet program on dog guides, *Denver the Guide Dog*. The company's first Braillo 400 high-speed braille embosser is installed. The Braillo eliminates the need for embossing plates, a sticking point in braille production for the past 150 years.

2002 The Hall of Fame for Leaders and Legends of the Blindness Field is dedicated at APH. The Hall honors the history of outstanding individuals who provide service to people who are blind or visually impaired. Thirty-two charter members of the Hall are inducted, including Helen Keller, Robert Irwin, and Samuel Gridley Howe. ATIC develops a new large type textbook process that will deliver a large type book in a standard textbook size. Large Type begins producing books in their original colors.

2003 APH narrator Barry Bernson receives the Alexander Scourby Award from the National Library Service. Forty-nine new products are introduced in 2003, led by the Bookport, a portable device with text-to-speech and digital audio capabilities. APH is certified by the Educational Testing Service as a "test-safe" site.

2004 "The Secretary shall establish and support, through the American Printing House for the Blind, a center to be known as the 'National Instructional Materials Access Center' not later than 1 year after the date of enactment of the Individuals with Disabilities Education Improvement Act of 2004." "Created by IDEA 2004, NIMAC is a federally funded, online file repository of source files in the NIMAS format. Here, authorized users can access more than 48,000 K-12 NIMAS files that can be used in the production of accessible formats for students with disabilities."

2008 The company conducts its first video webcast, a workshop on accessible tests. In fact, over 600 state and local tests and assessments are translated and embossed in braille that year. Eighty-eight new products are introduced including the Braille+ Mobility Manager, Azer's Interactive Periodic Table, and the Next Generation APH/Perkins Brailier. The day of the offset print press in Large Type comes to an end with the disposal of the last pair of A.B. Dick 9870 duplicators.

2012: Scholastic Purchases Weekly Reader and merges it with Scholastic News. APH produces its last braille and large print editions of Weekly Reader, published since 1936. APH ends its duplication of Talking Books on cassettes and switches its production line to flash drive cartridges. APH and eighteen other non-profit organizations concerned about the high cost of refreshable braille devices begin a quest to create a low-cost option by forming an international consortium to work on the issue.

2013 APH discontinues production of the APH Handicassette II, and ends its historic production of cassette talking book machines.

2015 Accessible Test Department and the Accessible Textbook Department have been combined under the direction of Jane Thompson. In July, Christopher A. McCoy accepts the position of Vice President of Production and Logistics. Vice President of Educational Services and Product Development Bob Brasher retires. He is replaced by Dorinda Rife, a former TVI in Arizona and Superintendent of the Perkins School for the Blind.

2016: President Tuck Tinsley retires and is replaced by Craig Meador. A former teacher and educational leader at the Washington State School for the Blind, Meador had served as APH's Vice President of Educational Services and Product Development since May 2015. The Transforming Braille group for which APH plays a vital leadership role announces a partnership with Orbit Research to produce a 20 cell refreshable braille display that will sell for \$300. In late July, the last operating Thomson-National "clamshell" press is taken out of production.

2017 In January, APH introduces the Orbit 20, its new braille display, the first display available for less than \$500, but quality issues will keep the company from delivering functional examples until 2018. In March, APH hires its first Chief Information Officer, Alejandro "Erick" Franco. In July, APH hires Anne Durham as its first VP of Marketing and Sales.

In November, APH announces that the APH Network Administration Group and Operations and Programming (CTS) has moved under the CIO, Alejandro Franco. The Communications Department has moved under Anne Durham, VP of Marketing and Sales.

2018: In January, Steve Paris is promoted to VP of Production, replacing Chris McCoy, who had been let go the previous summer. Scott Blome is promoted to become the company's first Director of Digital Content. In May, APH Public Affairs Department renamed Government and Community Affairs Department. Press releases and media contacts are transferred to Marketing and Sales under Anne Durham. In June, the Department of Field Services is renamed Education and Outreach. Dorinda Rife retires. On July 1st APH starts its stewardship of several new services as part of a partnership with the American Foundation for the Blind (AFB). This umbrella of services will be known as the **APH Connect Center** and will include AFB's Information and Referral Line, AFB Press, and a group of resource websites including: Family Connect, Braille Bug, Career Connect, and Vision Aware. Disagreements with the inventor of the Orbit 20 over price throw its future at APH, as well as the Orbit Research modified TI-84 scientific calculator, into doubt.

2019: On Jan 22, the internet blows up with news of APH partnership with Microsoft on the computer coding tool Code Jumper. On July 30, a transformer blows and APH cancels operations for the day for most staff. In September, APH announces that for the first time in recent history, APH is below \$100,000 in backorders. In December, Kate Herndon promoted to Senior Director, Product Operations and Analytics and Leslie Farr Knox promoted to Senior Director, Engagement and Experience. Marketing and Sales under Anne Durham is renamed the Innovation and Strategy Department. APH revises its strategic plan in December.

2020: VP of Development Bob Belknap leaves APH in January 2020. The AFB Helen Keller arrives at APH on January 28, 2020 on a ten year loan agreement. Digital Duplication of NLS Talking Books ends at APH in February 2020 and the production line is mothballed. Code Jumper becomes available for sale in February. On March 13, the museum closes temporarily due to the COVID-19 pandemic. On Tuesday, March 17th, APH sends all of its employees home, although it takes a few days for production to gear down. Braille, Large Print, Studio, Maintenance, and Educational Aids production workers return to a COVID-adapted workspace in early May, marked by facemasks, isolated workstations, plexiglass shields, and marked traffic patterns. The rest of the company continues to work from home. In May, Olaya Landa-Vialard joined APH as the first Director of the APH ConnectCenter. On October 6, news reaches APH that former VP of Development Bob Belknap has passed away from COVID-19. The Annual Meeting in October is conducted virtually, but the platform allows more than a thousand people to register and participate. In October, APH launches the APH Hive, an eLearning platform

for educators and families that contains free courses relevant to serving students of all ages who are blind or visually impaired. VP of Government and Community Affairs Gary Mudd retires from APH on December 31, after 34 years at APH. His replacement is Paul Schroeder, who becomes the first APH VP to work remotely from his home outside Washington DC.

2021: The first part of the year is marked by continued response to COVID-19 and a flood of retirements by longtime staff, a move encouraged by generous retirement benefits offered by the company.